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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,906	04/05/2004	Kuo-Chin Chen	3073/77	2642

7590 11/30/2005
DENNISON, SCHULTZ, DOUGHERTY & MACDONALD
Suite 105
1727 King Street
Alexandria, VA 22314

EXAMINER	
PHILOGENE, HAISSA	
ART UNIT	PAPER NUMBER
2828	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/816,906	Applicant(s) CHEN, KUO-CHIN	
	Examiner Haissa Philogene	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1, 2 and 5 are objected to because of the following informalities: In claim 1, line 10, change "an" before "output and input interface" to --said--. In claim 2, line 3, insert --AC-- before "power source". In claim 5, line 1, change "LES" to --LED--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deese et al., Patent No. 5,457,450 in view of Franz, Patent No. 6,856,344.

As per claim 1, Deese discloses in Figs. 2, 3, and 8 an LED signal light device, comprising a control panel (25, 525) being a printed circuit board and recording a circuit and relevant parameters (20, 520) therein in advance; an LED signal light (17) consisting of plural LEDS (1-12) which actively show a light display in a closed circuit and show various colors (red , green , yellow) accompanying with various arrangements into abstract symbols for indicating various traffic situations (see Col.13, lines 46-54); a rectifier (72) readable as an adapter provided for converting an AC to a DC. Deese does not disclose a central processing unit consisting of a microprocessor, a memory and an interface circuit for controlling the operation of the whole device and outputting a signal

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and receiving a command via an output and input interface; said [an] output and input interface provided for said central processing unit to output a signal or receive an external command signal through said interface; and said adapter for stabilizing the current provided to the whole device. Franz disclose in Fig.1 an LED signal light device or display (13) comprising a central processing unit (1) consisting of a microprocessor (2), a memory (3-6) and an interface circuit (7) for controlling the operation of the whole device and outputting a signal via bus 8' and receiving a command via an output and input interface (10) through bus 8; said [an] output and input interface provided for said central processing unit to output a signal or receive an external command signal through said interface (as shown); and a power supply (85) capable of being an AC/DC adapter (see Col.11, lines 3-4) for stabilizing the current provided to the whole device. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ the CPU as taught by Franz into the Deese type device. This can be done by Franz' s controller by Deese's CPU. Thus, it would allow implementation of any desired functionality of the system including detecting when vehicles at traffic signals and intersections and estimating the speed of the vehicles, thereby improving the efficacy of the system.

As per claims 3-8, Deese in view of Franz discloses the claimed invention substantially as explained above. Further, Deese discloses said device being connected to an AC power supply via AC power lines (118, 120); said LED (17) being a monochromatic LED selected from a group consisting of a red LED, a green LED and a yellow LED (see Col.5, lines 1-9); said LED (17) being a color changing LED showing a

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light of a particular color as being red, yellow or green under different particular voltages (full voltage, intermediate voltage, low voltage) (see Col.8, line 37-Col.9, line 26 and Fig.7); said LED signal light (17) (Fig.8) showing a light display time via the LED lighting areas (left turn) and said LED signal light (17) is displayed with a twinkled light as LEDs (12 or 11 and 12) disable during a burnout condition.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deese in view of Franz as applied to claim 1 above, and further in view of Deese et al., Patent No. 5,898,389.

Deese in view of Franz discloses the claimed invention substantially as explained above. Deese in view of Franz does not disclose a battery for alternatively providing power to the whole device with its storage power when the AC power source is ineffective. However, this feature is well-known in the art as evidenced by Deese which discloses in Fig.1 a LED signal light device having a storage battery (400) for alternatively providing power to a whole device with its storage power when the AC power source is ineffective (see Abstract, lines 1-4 and Col.1, lines 46-54). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ the battery as taught by Deese into the Deese in Franz type device, because it would allow emergency power to the LEDs during a blackout condition, thereby preventing the occurrence of many vehicle accidents.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pederson et al., Patent No. 6,879,263; McReynolds et al., Patent No. 4,167,784; Soulliard et al., Patent No. 5,880,682 ; Hatae et al., Patent No. 6,466,260; Lys et al., Patent No. 6,211,626; Casciato et al., Patent No. 3,254,324; Mee, Patent No. 6,111,523; Higgins et al., Patent No. 5,132,682; May et al., Pub. No. 2005/0156103.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haissa Philogene whose telephone number is (571) 272-1827. The examiner can normally be reached on 8:30 A.M.-6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MinSun Harvey can be reached on (571)272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hp

Haissa Philogene
Primary Examiner
[Signature]
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